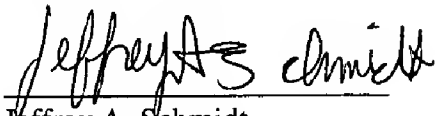
REMARKS

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Delete the paragraph bridging pages 2, 3, and 4, and insert:

In the prior art, a machining method for the conduction hole includes, for example, drill machining using a rotary milling cutter. Further, a machining method for grooving or cutting for an outside shape includes, for example, router machining using a rotary milling cutter. On the other hand, in recent years, higher density wiring has been desired for higher performance of an electronic device. A more multi-layered and smaller printed board is required to meet the above requirement. Further, it is essential to provide a finer hole diameter of the conduction hole for this purpose. With the current state of the art, the conduction hole is generally provided in the printed board by the mechanical method using the drill. However, the method has drawbacks in that the finer hole diameter is limited, for example, because drilling [for] a hole diameter of ϕ 0.2 mm or less is very difficult [to causes] and causes heavy wear of the drill such as breakage, resulting in poor productivity due to [a] the long time required for replacement of the drill. Further, it is difficult to simultaneously machine adjacent positions, thereby requiring a considerable machining time. In addition, the insulating base material has a thickness of 0.1 mm or less because of the smaller printed board. Since it is difficult to control a hole depth in the drill machining with accuracy of 0.1 mm or less, it is difficult to form [the] a blind via hole in such a thin-walled insulating base material. Further, in order to realize cost reduction by the smaller printed board and an increase in yield, the grooving and the cutting for the outside shape

require an accurate depth control in the grooving, a narrower cutting width, and cutting after parts are packaged. However, the mechanical methods such as router machining are unpractical since the above imitation is similarly imposed thereon.

Page 8, delete the third full paragraph and insert:

In order to over come the above problems, it is an object of the present invention to provide a stable laser beam machining method for a wiring board, in which a printed board with an insulating base material containing cloth-like glass fibers can rapidly and accurately be machined, for example, drilled for a through-hole, an inner via hole and a blind via hole, grooved, or cut for an outside shape without roughness of a machined portion and the need for complicated after-treatment of additional deposit, and no damage is caused to copper foil[, and]. It is also an object of the present invention to provide a laser beam machining apparatus for a wiring board, for realizing the laser beam machining method for the wiring board and improving productivity.

Delete the paragraph bridging pages 10 and 11 and insert:

According to another aspect of the present invention, there is provided a laser beam machining method for a wiring board, including the steps of setting a laser beam to have a square spot effective in machining of a machined portion of the wiring board, and scanning a surface of the wiring board while irradiating the machined portion of the wiring board with the pulsed laser beam. Preferably, the square spot of the laser beam on the machined portion is set to have a size of 0.9 mm x 0.9 mm, and the surface of the wiring board is scanned with a scanning speed of 6 m/min and a scanning pitch [of] is 200 μm while the machined portion being irradiated with the

laser beam for a beam irradiation time ranging from 10 to 200 μs and at intervals of a beam irradiation pausing time of 1.25 ms.

Page 49, delete the second full paragraph and insert:

Fig. 26 is a typical diagram showing a laser beam machining method for a wiring board, and a laser beam machining apparatus for a wiring board according to the embodiment 11 of the present invention. In the drawing, reference numeral 32 [means] denotes a laser oscillator, 33 is an fθ lens to condense a laser beam 27, 34 is beam scanner apparatus (optical mechanisms) using a galvanomter scanner, and 35 is a scanner drive/laser trigger apparatus (control mechanism) to output a drive command for the beam scanner apparatus 34 and a trigger of laser oscillation for the laser oscillator 32.